obtaining a request to **generate topological and management information** corresponding to two or more sites associated with a network;

obtaining site attribute information corresponding to the two or more sites;

processing the site attribute information to obtain site topological and management information; and

generating the site topological and management information on the graphical user interface.

(Emphasis added.)

Pugaczewski et al. does not disclose, teach, or even remotely suggest "obtaining a request to generate topological and management information," as recited in Claim 1. Pugaczewski et al. is directed to "a network management system for configuring a network connection between first and second service access points, to user interfaces for network management systems, and to online network management applications" (Col. 1, lines 20-24). Pugaczewski et al. further discloses "a network management system for *configuring a network connection* between a first service access point and a second service access point over a network" (Col. 2, lines 3-7). Pugaczewski et al. further discloses that:

> the system comprises an information manager and a configuration manager. The information manager includes *routing information* for the network. The information manager is operative to determine *a route* made up of *links over the network* from the first point to the second point . . . the configuration manager operates to establish a *connection across each subnet* on the route by sending a request to the corresponding elements manager to program the at least one subnet element. The element is programmed in accordance with the network logical link across that subnet. The configuration manager further operates to establish a network-to-network connection between adjacent subnets on the route.

(Col. 2, lines 10-24; emphasis added.)

Those skilled in the art will appreciate that a request to generate topological information is not the same as establishing a connection between a first and a second point, as disclosed by Pugaczewski et al. As generally known in the art, a network is a set of nodes interconnected by a set of arcs connecting the nodes. A node may generally be connected to any number of arcs

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS[PLLC]
1420 Fifth Avenue, Suite 2800
Seattle, Washington 98101
206.682.8100

going to other nodes. A route is a path through the topology of a network connecting two or more nodes within the network. A route includes a number of links that form part of the path. As such, a route through a network is not the same as the topology of the network. "Network topology" is generally defined in the art as "the configuration of a communication network" and "the way the network looks" (Newton's Telecom Dictionary, Harry Newton, 14th ed., Flatiron Publishing, New York, 1998). "*Two networks have the same topology* if the connection configuration is the same . . ." (emphasis added; The Institute for Telecommunication Sciences, U.S. Government, URL: www.its.bldrdoc.gov/fs-1037/dir-024/_3535.html; see attached Exhibit A and Exhibit B). The distinction between a route and a topology may be illustrated by an example. Given two nodes, A and B, in a network, a communication *route* between A and B is a path that comprises a list of nodes and the arcs connected between the nodes running from A to B. The route does not include arcs connected to the nodes that do not lie on the path between A and B. In contrast, the topology of the network includes all of the arcs connected to the nodes that lie on the path between A and B. A route includes only the nodes and arcs on a *single path* between A and B, whereas topology includes *all arcs* on a network regardless of whether they lie on a particular path through the network. In summary, topology and route are not the same. They are distinctly different.

Pugaczewski et al. does not disclose, teach, or even suggest *obtaining site attribute information* and *processing the site attribute information to obtain site topological* and management information, as recited in Claim 1. Pugaczewski et al. discloses that "requests to create network logical links made by the network management layer configuration manager 248 are received at the element management layer." It is unclear how the foregoing disclosures by Pugaczewski et al. disclose or teach obtaining site attribute information corresponding to the two or more sites, as recited in Claim 1. Furthermore, Pugaczewski et al. does not disclose, teach, or even suggest *processing the site attribute* information to *obtain site topological* and management information. The Office Action states, "example, such as the medium further comprises

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS[PLLC]
1420 Fifth Avenue, Suite 2800
Seattle, Washington 98101
206.682.8100

instructions for operating a non-graphical background process for handling communication with the network management system, see col., 3 lines 41-55." It is unclear how the foregoing statement teaches or suggests processing the site attribute information to obtain site topological and management information, as recited in Claim 1. The medium in the foregoing statement is directed to a computer-readable storage medium disclosed in Pugaczewski et al., in Col. 2, line 66. The instructions indicate computer-executable instructions for carrying out the disclosed invention. Instructions for operating a non-graphical background process as disclosed by Pugaczewski et al. is not the same as processing site attribute information to obtain site topological information.

Pugaczewski et al. discloses "instructions for *establishing a connection* between the graphical user interface and the network management system" (Col. 3, lines 42-45; emphasis added). Establishing a connection is not the same as obtaining site topological information by processing site attributes. Those skilled in the art will appreciate that topological information defines configuration or arrangement of nodes with respect to each other in a network regardless of which particular path messages traversing the network may take. In contrast, a connection route in a computer network generally indicates a particular path that a communication message traverses in the computer network. Specifically, Pugaczewski et al. discloses, "A network logical link provides a *path across a subnet*. . . . The element is programmed in accordance with the network logical link across that subnet" (Col. 2, lines 16-23; emphasis added). Therefore, Claim 1 is submitted to be allowable for at least the reasons discussed above.

Independent Claims 15 and 27 recite features substantially similar to those discussed in Claim 1 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 1.

Claims 2-6 and 9-14 depend from Claim 1 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 1.

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^PLLC
1420 Fifth Avenue, Suite 2800
Seattle, Washington 98101
206.682.8100

Claims 16-18 and 20-26 depend from Claim 15 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 15.

Claims 28-31 and 33-38 depend from Claim 27 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 27.

<u>Rejection of Claims 7, 8, 19, and 32 Under 35 U.S.C. § 103(a)</u>

As indicated above, Claims 7, 8, 19, and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pugaczewski et al. in view of Richardson. Applicants respectfully disagree for the reasons set forth below.

Claims 7 and 8 depend from Claim 1 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 1. Similarly, Claim 19 depends from Claim 15 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 15. Also similarly, Claim 32 depends from Claim 27 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 27. Richardson fails to supply the teachings missing from Pugaczewski et al. Richardson does not disclose, teach, or even suggest obtaining and processing site attribute information to obtain site topological and management information. Richardson is directed to a network management system for monitoring the health of network devices (Abstract). Richardson discloses that "<u>*user-configurable group views*</u> allow an administrator of the network . . . to 'drill down' . . . to the network device . . . that is the subject of the critical event . . . " (Col. 5, lines 14-20; emphasis added). "User-configurable group views" clearly indicate that the user is already aware of the configuration and at least partial topology of network devices. As such, Richardson does not disclose or teach obtaining a request <u>*to generate topological information*</u>. Richardson further discloses "<u>*each network object is grouped in a group*</u> view with other network objects . . . ," again clearly indicating that network topological information is already known and not generated, in contrast to Claim 1, which recites "processing the site attribute information <u>*to*</u>

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS[PLLC]
1420 Fifth Avenue, Suite 2800
Seattle, Washington 98101
206.682.8100

MSFT\22431AM1 DOC

obtain site topological and management information" (emphasis added). Therefore, Claims 7, 8, 19, and 32 are submitted to be allowable for these reasons.

CONCLUSION

Applicants respectfully submit that all the claims in this application are clearly allowable in view of the cited and applied references and remarks presented above. Therefore, applicants respectfully request that this application be reexamined, all of the claims remaining in this application be allowed, and this application be passed to issue. If the Examiner has any questions, the Examiner is invited to contact applicants' attorney at the number set forth below.

Respectfully submitted,

CHRISTENSEN O'CONNOR
JOHNSON KINDNESS[PLLC]

Gary S. Kindness

Gary S. Kindness
Registration No. 22,178
Direct Dial No. 206.695.1702

GSK/FXM:tmm:lpz

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS[PLLC]
1420 Fifth Avenue, Suite 2800
Seattle, Washington 98101
206.682.8100

EXHIBIT A

Institute for Telecommunication Sciences

Boulder, Colorado

ITS is the research and engineering branch of the
National Telecommunications and Information Administration (NTIA),
a part of the U.S. Department of Commerce (DOC).

Site Map

SEARCH ITS

ABOUT ITS:
Mission & History
Organization & Staff
ITS Brochure
2007 Technical Progress Rpt (5 MB)

ANNOUNCEMENTS:

Public Safety Video Quality – *Seeking Practitioners for Video Performance Testing*

NEWS & EVENTS:
Awards
Conferences, Groups, Meetings

International Symposium on Advanced Radio Technologies

ISART

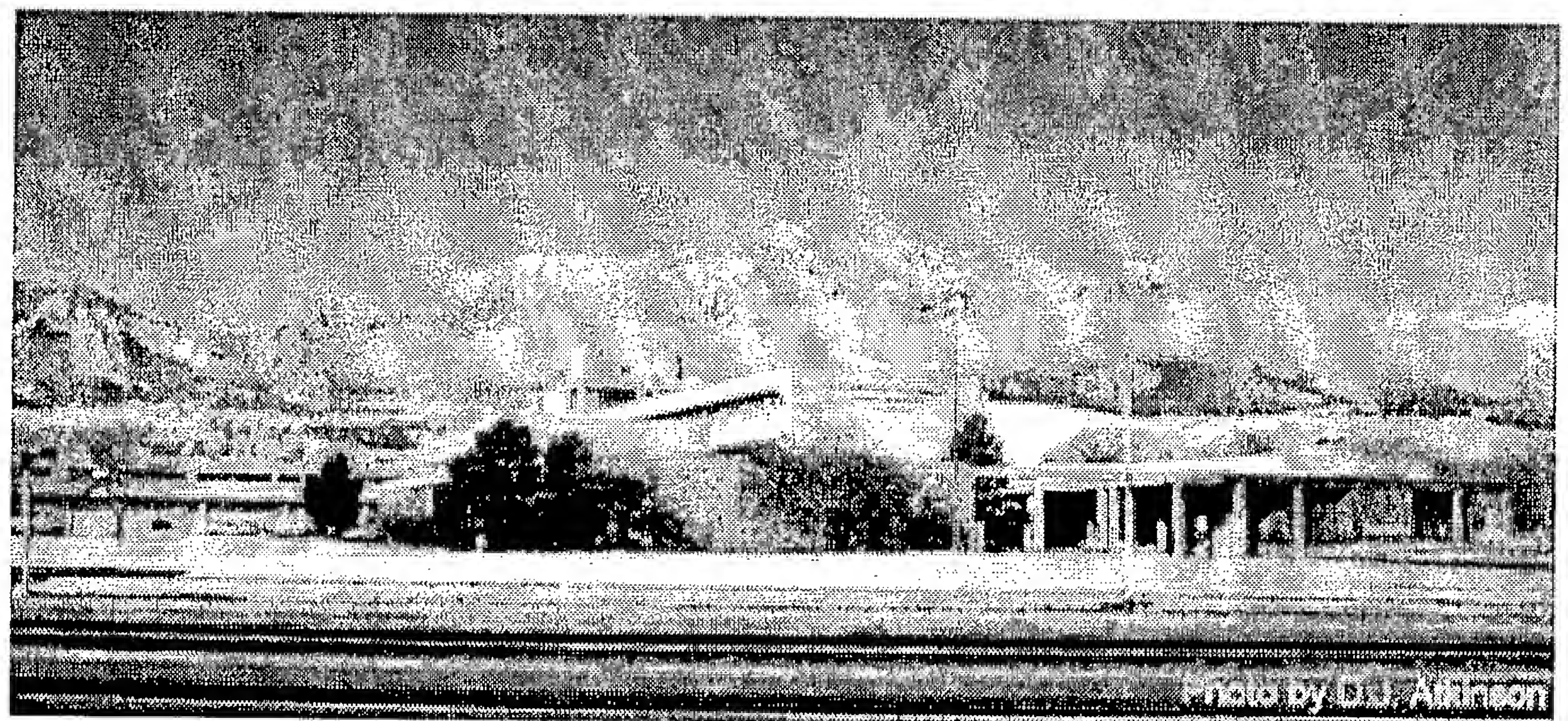
Employment Opportunities
Internships
Job Vacancies
Press Releases

PROGRAMS & PROJECTS:
Technical Programs

PUBLICATIONS:
Online Publications
Publication Lists
Fed Standard 1037C
Telecom Glossary 2000

RESOURCES:
Public Safety Communications
Radio Propagation Data
Radio Propagation Software
Table Mountain Field Site
TA Services
Video Quality Metric (VQM) Software
Anonymous FTP

AREA INFORMATION:
Boulder Laboratories Site Status
Boulder Laboratories Visitor



The Institute is located at: 325 Broadway, Boulder, CO 80305–3328.

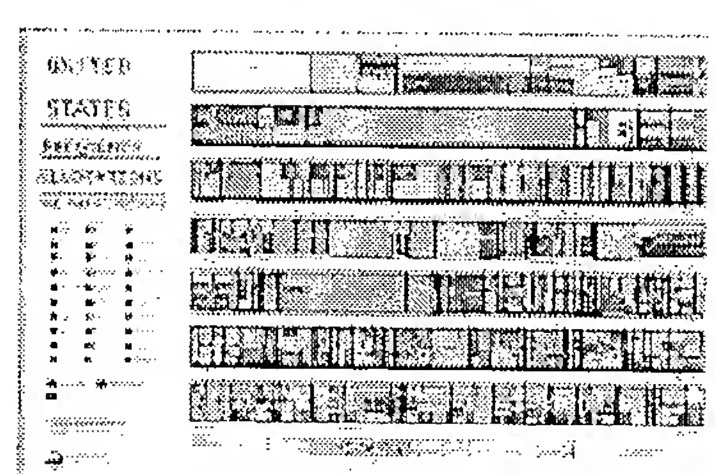
Contact ITS at: (303) 497-5216
Monday-Friday 8 a.m. - 5 p.m. U.S. Mountain Time.

We are interested in your comments and questions.
Please send E-mail to: *info@its.bldrdoc.gov*.

Privacy Policy

Disclaimer

Public Safety Video Quality
Seeking Practitioners for Video Performance Testing



Information

Send website questions to:
Jeanne Ratzloff, ITS Webmaster

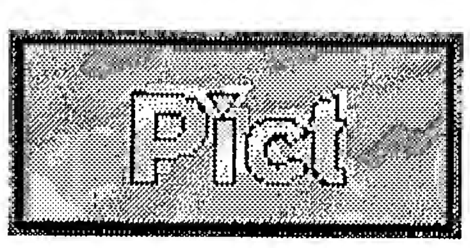
USA.gov
Government Made Easy

EXHIBIT B

network topology

network topology: The specific physical, *i.e.,* real, or logical, *i.e.,* virtual, arrangement of the elements of a network. *Note 1:* Two networks have the same topology if the connection configuration is the same, although the networks may differ in physical interconnections, distances between nodes, transmission rates, and/or signal types. *Note 2:* The common types of network topology are illustrated *[refer to the figure on this page]* and defined in alphabetical order below:

- **bus topology:** A network topology in which all nodes, *i.e.,* stations, are connected together by a single bus.
- **fully connected topology:** A network topology in which there is a direct path (branch) between any two nodes. *Note:* In a fully connected network with n nodes, there are n(n-1)/2 direct paths, *i.e.,* branches. *Synonym* **fully connected mesh network.**
- **hybrid topology:** A combination of any two or more network topologies. *Note 1:* Instances can occur where two basic network topologies, when connected together, can still retain the basic network character, and therefore not be a hybrid network. For example, a tree network connected to a tree network is still a tree network. Therefore, a hybrid network accrues only when two basic networks are connected and the resulting network topology fails to meet one of the basic topology definitions. For example, two star networks connected together exhibit hybrid network topologies. *Note 2:* A hybrid topology always accrues when two different basic network topologies are connected.
- **linear topology:** *See* bus topology.
- **mesh topology:** A network topology in which there are at least two nodes with two or more paths between them.
- **ring topology:** A network topology in which every node has exactly two branches connected to it.
- **star topology:** A network topology in which peripheral nodes are connected to a central node, which rebroadcasts all transmissions received from any peripheral node to all peripheral nodes on the network, including the originating node. *Note 1:* All peripheral nodes may thus communicate with all others by transmitting to, and receiving from, the central node only. *Note 2:* The failure of a transmission line, *i.e.,* channel, linking any peripheral node to the central node will result in the isolation of that peripheral node from all others. *Note 3:* If the star central node is passive, the originating node must be able to tolerate the reception of an echo of its own transmission, delayed by the two-way transmission time, *i.e.,* to and from the central node, plus any delay generated in the central node. An active star network has an active central node that usually has the means to prevent echo-related problems. (188)
- **tree topology:** A network topology that, from a purely topologic viewpoint, resembles an interconnection of star networks in that individual peripheral nodes are required to transmit to and receive from one other node only, toward a central node, and are not required to act as repeaters or regenerators. (188) *Note 1:* The function of the central node may be distributed. *Note 2:* As in the conventional star network, individual nodes may thus still be isolated from the network by a single-point failure of a transmission path to the node. *Note 3:* A single-point failure of a transmission path within a distributed node will result in partitioning two or more stations from the rest of the network.



This HTML version of FS-1037C was last generated on Fri Aug 23 00:22:38 MDT 1996